

## 32-20145: Recombinant Murine GDNF(Discontinued)

**Reactivity :** Mouse, Rat

**Alternative Name :** Glial-Derived Neurotrophic Factor, ATF-1

### Description

**Source:** E.coli GDNF is a disulfide-linked, homodimeric neurotrophic factor structurally related to Artemin, Neurturin and Persephin. These proteins belong to the cysteine-knot superfamily of growth factors that assume stable dimeric protein structures. GDNF signals through a multicomponent receptor system, composed of a RET and one of the four GFRAlpha (Alpha 1-Alpha 4) receptors. GDNF specifically promotes dopamine uptake and survival, and morphological differentiation of midbrain neurons. Using a Parkinson's disease mouse model, GDNF has been shown to improve conditions such as bradykinesia, rigidity, and postural instability. The functional murine GDNF ligand is a disulfide-linked homodimer consisting of two 15.1 kDa polypeptide chains called monomers. Each monomer contains seven conserved cysteine residues, including Cys-101, which is used for inter-chain disulfide bridging, and others that are involved in the intramolecular ring formation known as the cysteine-knot configuration. The calculated molecular weight of Recombinant Murine GDNF is 30.2 kDa.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Purity:  $\geq 98\%$  by SDS-PAGE gel and HPLC analyses.

**Content :** This recombinant protein is supplied in lyophilized form.

**Amino Acid :** MSPDKQAAAL PRRERNRQAA AASPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS  
GSCSAETMY DKILKNLSRS RRLTSDKVGQ ACCRPVAFDD DLSFLDDNLV YHILRKHS AK RCGCI

### Application Note

The  $ED_{50}$  was determined by the proliferation of rat C6 cells is  $\leq 0.2$  ng/ml, corresponding to a specific activity of  $\geq 5 \times 10^6$  units/mg.